THE PLOUGH BOY.

AND JOURNAL OF THE BOARD OF AGRICULTURE.

BY SOLOMON SOUTHWICK.

"He that observeth the wind shall not sow; and he that regardeth the clouds shall not reap."—BUT—"He that tilleth his land shall have plenty of bread."—*Ecclesiastes.*

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ORIGINAL.

FOR THE PLOUGH BOY.

Scientific Memoranda.—No. II.

The Telescope.—The invention of the Telescope was owing to chance. The children of a spectacle maker at Middleburgh in the island of Zealand, playing in their father's shop, made him observe that when they held between their fingers, two spectacle glasses, at some distance from each other, they saw the weathercock of the steeple much larger than usual, and as if it were very near them, but reversed. Surprized at this peculiarity, the father of these children fixed two glasses upon a board set upright in two brass circles, which he could move backward and forward, so as to fix them at what distance he thought fit. But this served only as an object of curiosity. The invention remained long unimproved or useless.

Two workmen of the same town, Zachariah Jansen and James Metius, vied with each other in giving a new form to the discovery, of which they claim all the credit. One of them, intent upon the effects of light only, fixed the two glasses in a tube blacked on the inside. This diverted and absorbed an infinity of rays, which, in reflecting from all sorts of objects, on the sides of the tubes, and not reaching to a point of union, but to one side, confounded and destroyed the principal image. The other workman placed his glasses in tubes, which slided one in the other, as well to vary the points of sight in lengthening the instrument, as to make it portable by the diminution of the length. Several others have contributed to the improvement of this instrument; but the perfecting of it was owing to the Dutch, and, on its first appearance, in its present form, it was, in consequence, called the *Dutch spectacles.*

Galileo, astronomer to the Grand Duke of Tuscany, having merely heard the instrument mentioned, and without seeing a model, immediately formed a correct idea of it; and having constructed one upon more enlarged principles, he discovered the spots round the sun; saw this planet move on its own axis in 26 days; ascertained the existence of the four moons of Saturn, since discovered to be a great luminous ring encircling that planet. In short, he saw a new heaven, a sun different from that which had hitherto been seen: He immediately published his *Nuncius Sidcrius*, or *News from the Starry Regions*, to which his Telescope had given him access.—The facts which these discoveries established, so completely exposed the impositions of the clergy of those times, who enriched themselves, and established an empire over the mind, by proclaiming a crusade against science, that they became enraged at Galileo; and to such lengths did their holy phrenzy carry them, that nothing would appease their wrath until this illustrious philosopher, whom they charitably denominated Infidel and Atheist, was immured in the dungeons of the Inquisition. In spite, however, of these tyrannic guides, posterity has done justice to the memory of Galileo, whose system has been adopted by all rational men, and whose name will be held in respect, so long as there are beings capable of contemplating the starry region which he discovered.

FOR THE PLOUGH BOY.

Domestic Economy.

Mr. Southwick,

I am an housewife, and my husband a farmer; we have had some pretty warm debates upon the subject of managing the farm: I want him to raise more flax and less rye; his excuses are, that flax requires too much labour—too much expense for seed—is uncertain, and exhausts his land too much—*and that he can buy India muslins cheaper!*

I say all this is downright folly: my house is furnished with these India cobwebs—and my children clothed with cotton rags—my husband in debt for this trash—and his rye wont pay his debts, even if he could raise ever so much: year after year he will persist in this fatal practice; and every year our stock of sheep and cows diminishes, and we grow poorer and poorer; my girls are idle for want of wool and flax, and I do verily believe we shall want a farm and an house ere long, if some change does not take place in our economy.

I tell him, when I was a girl, I and my ten sisters would have been ashamed of ourselves, and our mother would have been ashamed of us, if we did not spin our 300 knots per day of wool, cotton, or flax, besides doing our chores; and my father took pride in supplying us with the raw materials, and was delighted to see us clothed in the fabrics of our own industry, and his house furnished with substantial homespun in abundance. Look, Moses, says I, at our house, and our six daughters—idle— hardly decent in dress—trigged off in flimsey callico and India muslin—and our beds and clothes presses almost empty!—why wont you raise flax? It was not so in my father's house! Hush, Dorothy, hush I say—don't scold—*I can buy India cottons cheaper!*

Now, Mr. Southwick, I say this is enough to provoke the patience of apathy itself. I will scold and fret, to see my girls idle, hardly decent in dress, my house furnished with cotton cobwebs and rags, and all going to loss and ruin for want of flax, and wool, and wheels, merely for want of materials; for I do say, that my girls, if they had

a chance, would do themselves credit in any branch of housewifery, and it is cruel to deny them the means.

I wish you would, in your next Plough Boy, give my husband, and his neighbours, a good lecture on the subject. You will do a most acceptable service to us wives, as well as to our daughters, and particularly to yours, &c.

DOROTHY THRIFT.

Ontario, N. Y. May, 1820.

FOR THE PLOUGH BOY.

Crows.

Mr. SOUTHWICK,

I noticed in the Plough Boy, No. 51, a recipe for preserving corn from the depredations of crows. I presume it may be useful; but I am induced to offer another, which I know by experience has proved an effectual defence to my crops.

Some years ago I was attacked by unusual numbers of the *corbean*, a species of bird something less than our crow; if possible, much more mischievous, and peculiar, I believe, to the southern states; for I never have seen any of them in the north. My corn was totally destroyed by them twice, in despite of all my efforts to defend it with guns, dogs and scare-crows. I planted it over the third time, and resorted to the following expedient to defend it:—I purchased a pound or two of *musc vomica*; pounded it, or rather bruised it, in an iron mortar; poured into it hot water, and let it digest 24 hours, say 4 or 6 gallons; I then added about half a bushel of corn, which was suffered to steep all night; early in the morning, just as the corn in the field began to appear above ground, I scattered my soaked corn in every direction about the field: the crows, or corbeans, came in flocks--the corn disappeared—I renewed it three times--and the last time I found it was very little disturbed: after the third day I never saw a crow light near the field until my crop was entirely out of danger, and a great number of rats, mice, and squirrels, were destroyed by it.

I removed from that country the next season, and came into the western district, where we have no crows: accordingly, I never have had occasion to repeat the experiment; but as it is a very cheap and easy one, I think it worth a trial, and I believe it will be found effectual.

AGRICOLA.

Middlesex, May 27, 1820.

FOR THE PLOUGH BOY.

To clean Flax-seed.

Mr. SOUTHWICK,

I will give you my plan for cleaning flax-seed. You are at liberty to publish it in your valuable paper if you think it worthy of notice.

Make a comb of wood, similar to the wool comb, only one row of teeth; bore a hole in the middle post of your barn: a boy of ten or twelve years old will comb of bowls enough, in one day, for any farmer's seed. When this is done, take your wheat riddle, and riddle the whole, leaving the bowls by themselves; clean your floor, thresh the bowls; after which run through the mill, and your seed will be perfectly freed from all kind of foul seed.

Any mechanic can make a comb for 25 cents. Take hard wood, six inches long; split it 1-2 or 3-4 of an inch square; try out 2 inches for the butt end; taper from this to the point in the shape of a hand-saw file, only the point verging upon one side, so as to leave one side perfectly flat and straight; set the teeth in a mortar, or groove, cut on purpose, with the flat sides all one way.—This done, put a stem or handle in the piece of wood which has the teeth in; drive this stem in the post (as above) firm, with the teeth inclining toward the post. A.

P. S. If any farther description be necessary, I will endeavour to explain more fully.

FOR THE PLOUGH BOY.

A traveller passing through a country, and seeing the fields covered with mullen, and the cobs of Indian corn lying in the street, will conclude that such persons do not work it right. The mullen covers a space which, if in grass, would remunerate to many farmers more than the amount of their taxes. It is a bienniel plant, and can easily be subdued by taking a sharp hoe and cutting them off near the ground at the latter end of May, or any time before they go to seed.—Cobs make good manure for a nursery, or the field; and when burnt the ashes make an excellent substitute for pearl ashes, in raising flour: Economical and industrious families use it for that purpose. A. B.

FOR THE PLOUGH BOY.

Seed Potatoes.

Mr. SOUTHWICK,

In one of your late Plough Boy numbers, I notice an enquiry whether it is better to plant large or small potatoes for seed? Experience has taught me that this crop as well as all others should be set with the very best, soundest and choicest selection of seed. By a contrary practice in the course of a few years, my crops degenerated to almost nothing: it was my practice yearly to call out for family use all the best and largest potatoes and to plant none but the cullings. The consequeuce was that my crop was reduced to the last stage of worthlessnes, in quantity and quality. I changed my practice, selecting all the small, unripe and damaged potatoes as I dig them; these are boiled and fed immediately to my hogs and cattle, and none but the choicest, largest, and most perfect of them are saved for seed and for use. The result of this practice has been every way satisfactory, and my crops have been four times more than doubled in quantity and quality.

Experience has taught me that no crop is more improved by a careful selection of seed than that of potatoes, and none more deteriorated by bad seed.

The same experience has taught me that no crop pays the farmer so well for the labour bestowed on it, if it be judiciously managed. By distillation it yields spirit to pay a good profit for the labour. The slop is an excellent food for cattle and Hogs. It is a most superior crop to subdue and prepare land for wheat, Rye, and clover. The results for ten years past have encouraged me to extend the culture of this crop to the extent of from 1 to 3000 bushels annually with uniform profit and advantage. But all depends on good cultivation and a judicious selection of seed. Such has been the result of my

EXPERIENCE.

Middlesex, May 29.

FOR THE PLOUGH BOY.

Manure.

Mr. SOUTHWICK,

It is a very prevalent practice among gardners and farmers to suffer their manure to remain until it is old and rotten before they will venture to apply it to the soil. This is most certainly an error. My practice has been directly opposed to this, even in my garden. I take fresh stable and yard manure and lay it on the garden or field, being careful to dig or plough it deep under the soil; a fermentation ensues, which charges the earth with the vegetable food in abundance, diffuses a kindly warmth, and every way more than doubles the value of the manure, when compared with old exhausted manures, which have lost all their active qualities by exposure to the sun and air, and by fermentation

If I am correct in my theory, the object of applying manures to the soil is to charge it with food for plants. This food is said to be *animal and vegetable matter resolved into carbonic acid gas.*—A decomposition of animal and vegetable manures must furnish this food in great abundance, especially when recent; and I have deemed it time lost to delay an hour in getting my yard and stable manure under ground early in the spring. When once covered in the earth, the warmth and moisture of summer gradually resolve it into *the food of plants*; the earth above absorbs, retains, and yields it by degrees; the effect is permanent, and the crops have convinced me that the practice is correct. More than half the virtues of these manures are certainly dissipated during a rapid fermentation on the surface of the earth, and by the drenchings of rain during summer, when left to the action of air and rain until they are rotten

and decayed, as is the usual practice. It is true I am somewhat troubled with weeds in consequence of using manures in this way, *but the hoe and rake* are an effectual remedy for this inconvenience, in time.

I am convinced that stable and yard manure cannot be applied to the soil too early, or in too crude a state, provided it be immediately buried in the soil. By this practice all the virtues are secured and retained for beneficial purposes.—Such is the result of my observation.

EXPERIENCE.

Midddlesex, May 27.

Hoof Ail.

TO THE EDITOR OF THE PLOUGH BOY.

SIR,

Having noticed some observations on the hoof ail, in cattle, which appeared in number 41, of your paper, and which referred to some previous remarks on the subject, I offer you the result of my experience in raising cattle ; an employment with which I have been familiar for a number of years. I shall say nothing of the disorder in question from my own experience, for it has never prevailed among my cattle, though those of my neighbours have had it in every direction round me, but shall merely shew how I manage my own stock during the winter season—after first premising that in 1801 I left my father's farm in Pomfret, Connecticut, purchased 400 acres of land in Homer, now in the county of Cortland, became a farmer, and went to clearing my land, and raising stock. The first winter my cattle were sheltered by the standing trees, or by a hovel covered with hemlock boughs ; the next season I built a 50 feet barn, with a stable for 10 cattle, with an earthern floor, as Mr. Coventry recommends, and such cattle as I could not stable, I kept well littered with straw. Since that time, I have built four more barns, and have one in which I stable 20 cattle ; the floors of the stables in these is of 2 inch plank, and one of them is about 7 feet from the ground, having a dung vat underneath. This stable is so exposed underneath to the cold winds that my cattle would certainly freeze if such exposure subjected them to freezing.

Turning of cattle into a cold snowy lot, or driving them up in the night, are practices which I shall not recommend My practice is to stable about half my older stock ; the younger ones lie in my yards, which are well littered with straw, with sheds for shelter when they choose to resort to them.

I fodder my cattle before the rising of the sun, and if the weather be cold I give them another small feeding when I let them from the stable, which should be by 8 in the morning. I then feed them once or twice more in the day, according to the severity of the weather. At night, I am careful to see them all in their proper places, and with sufficient food, and, except in case of necessity, never allow them to be disturbed before morning. In this manner I have kept 73 head of horned cattle, 66 sheep, and 6 horses, through the winter, and they are all well and healthy.

I am induced to believe that cattle never become frozen until they are first distempered. In conversing with farriers, and those of most experience, I derive the following information in regard to the freezing of the feet :—The animal affected appears to be uneasy, kicks and stamps with its hind feet, or with the one diseased, if only one ; soon after it becomes lame, and then the diseased foot, or feet, as the case may be, is frozen by the first severe cold that follows. The first appearance of the disease is between the foot, and what is called the dueclaws, which are just above the hoofs, on the back of the leg. As soon as the foregoing symptoms of the disease are discovered, the creature is to be cast, and two bags, or protuberances of infected matter, to be found at the place just mentioned, are to be opened, and cleansed within. Some fill the wound with fine salt, some with spirits of nitre, and some with oil of spike. A neighbouring farmer told me, a few days since, that he could in this way save 99 in 100 of cattle affected with this disease ; but that the remedy must be applied before the stagnation of blood in the feet takes place, for then the diseased feet become frozen in cold weather.

In regard to the diseases of horned cattle, I am induced to believe that many of them originate in what is called the *hollow tail* or *tail sickness*. In this case the end of the tail is found to be soft and loose, and the long hairs at the end will hang in a quirl or twist. This disorder, I am induced to believe, is the cause of the *horn distemper*, the *yellow water* &c. My remedy is to cut off a small piece of the tail when the cattle are young, and to repeat the process every year before the setting in of cold weather. Bleeding cattle in the spring is of use to them. I am, sir, yours, &c.

SAMUEL GRIGGS.

Homer, Cortlandt Co. May 18, 1820.

Note to the above.—We presume Mr. Griggs will excuse us for omitting his observations on the proper time for cutting and curing grasses for hay, and his remarks for salting hay. The advantage of applying about 6 or 8 quarts of salt to every ton of hay, when laid down, is too well ascertained to admit of a doubt ; and it is also well ascertained that hay when when laid away, with such allowance of salt, is in less danger of being mow-burnt than when without salt. It is fully believed, by those who have had due experience of the benefit to be derived from salting hay, that a ton, laid down with salt, as abovementioned, will be found as nutritious, in keeping cattle, as a ton and a quarter laid down without salt. The remark of Mr. Griggs, that cattle may become tired of constantly eating food tinctured with salt, we believe to be correct, and that therefore cattle should not constantly have salt in their food, and at no time but in moderate quantities. When we have concluded the work on *Agricultural Chemistry*, by Sir H. Davy, the appendix to that work will follow, which treats solely on grasses, their various products, when they afford the most nutriment, which necessarily includes the proper time for cutting such grasses ; and when Mr. Griggs has examined this appendix, we are induced to believe he will find reason to alter his opinion as to the proper time of cutting grasses. His remarks on the *hoof ail*, we think worthy of *particular* attention.

Houston's Palmyra.

Our friend HOUSTON, whose letters on *Flemish Husbandry* are so interesing to our agricultural readers, is engaged in manufacturing a liquor, to which he has given the classic name of PALMYRA. A letter from a gentleman of respectability in New-York, to the Editor, says—

I sent you a few bottles of a new liquor, prepared for the first time by Mr. George Houston, to which he has given the classic name of *Palmyra* ; it being indebted for its peculiar qualities to the fruit of the palm tree, which grows in such abundance around that celebrated city. Mixed with water it is a pleasant beverage, particularly in hot weather ; but its principal use is for making *milk punch*. One wine glass is sufficient for a half pint of milk, with which it mixes in an instant, and no sugar is required. He sells it at ten and sixpence a gallon ; or three and sixpence each bottle.

In Edinburgh, where I was born, the physicians uniformly prescribe milk punch in the early stage of a consumption. It is drank in the morning early. I have known a variety of cases, which came under my own observation, where it was completely successful in effecting a cure. Indeed, I never heard of it failing in any instance. Milk punch is much drank in this country ; but I have not heard of its being prescribed as a medicine. Would it not be desirable to try the experiment ? The only objection (and it is certainly a serious one) to the use of it, as *commonly* prepared, would be the foul and pernicious spirit sold by the grocers.—This could only be obviated by the use of Houston's Palmyra, which is entirely free of all impurities, and has been frequently used by our worthy friend Dr. Mitchill.

FOR THE PLOUGH BOY.

NEW-JERSEY SALT MARSH COMPANY.

The Legislature of New Jersey has incorporated a company for the purpose of draining, embanking and cultivating the salt meadows and marshes, in the county of Bergen, which includes all the lands now owned by the Messrs. SWARTWOUTS at Hoboken and Newark. The company is empowered to purchase lands to the amount of THREE HUNDRED THOUSAND DOLLARS, and to improve them in such manner as may be deemed expedient. The privileges are extensive and liberal, and we have no doubt of the success of the plan.

Cadwallader D. Colden	*Richard Riker*
William Bayard	*Peter A. Jay*
John Swartwout	*Charles G. Haines*
Isaac Chauncey	*John Condit*
Robert Swartwout	*George Buckmaster*
Joseph G. Swift	*Robert M'Queen*
Henry Ecford	*James L. Bell*
Samuel Swartwout	*John Targee*
Robert Tillotson	*Robert Campbell*
Samuel J. Green	*Wm. S. Pennington.*

SELECTIONS.

Agricultural Chemistry.

No. XLI.

Whether all matter is not the same, only differently modified.—Quere?

[276] The whole tenor of the preceding Lectures shews that a great variety of substances contributes to the growth of plants, and supplies the materials of their nourishment. The conversion of matter that has belonged to living structures into organised forms, is a process that can be easily understood; but it is more difficult to follow those operations by which earth and saline matters are consolidated in the fibre of plants, and by which they are made subservient to their functions. Some enquirers adopting that sublime generalization of the ancient philosophers, that matter is the same in essence, and that the different substances considered as elements by chemists, are merely different arrangements of the same indestructible particles, have endeavoured to prove that all the varieties of the principles found in plants, may be formed from the substances in the atmosphere; and that vegetable life is a process, in which bodies that the analytical philosopher is unable to change, or to form, are constantly composed and decomposed. These opinions have not been advanced merely as hypotheses; attempts have been made to support them by experiments. M. Schrader and Mr. Bracconnot, from a series of distinct investigations, have arrived at the same conclusions. They state that different seeds sown in fine sand, sulphur, and metallic oxides, and supplied only with atmospherical air and water, produced healthy plants, which by analysis yielded various earthy and saline matters, which either were not contained in the seeds, or the material in which they grew; or which were contained only in much smaller quantities in the seeds; and hence they conclude that they must have been formed from air or water, in consequence of the agencies of the living organs of the plant.

The researches of these two gentlemen were conducted with much ingenuity and address; but there were circumstances which interfered with their results, which they could not have known, as at the time their labours were published they had not been investigated.

I have found that common distilled water s far from being free from saline impregnations. In analysing it by Voltaic electricity, I procured from it alkalies and earths; and many of the combinations of metals with chlorine are extremely volatile substances.—When distilled water is supplied in an unlimited manner to plants, it may furnish to them a number of different substances, which though in quantities scarcely perceptible in the water, may accumulate in the plant, which probably perspires only absolutely pure water.

In 1801 I made an experiment on the growth of oats, supplied with a limited quantity of distilled water in a soil composed of pure carbonate of lime. The soil and the water were placed in a vessel of iron, which was included in a large jar, connected with the free atmosphere by a tube, so curved as to prevent the possibility of any dust, or fluid, or solid matter from entering into the jar. My object was to ascertain whether any siliceous earth would be formed in the process of vegetation; but the oats grew very feebly, and began to be yellow before any flowers formed: the entire plants were burnt, and their ashes compared with those from an equal number of grains of oat. Less siliceous earth was given by the plants than by the grains; but their ashes yielded much more carbonate of lime. That there was less siliceous earth I attribute to the circumstance of the husk of the oat being thrown off in germination; and this is the part which most abounds in silica. Healthy green oats taken from a growing crop, in a field of which the soil was a fine sand, yielded siliceous earth in a much greater proportion than an equal weight of the corn artificially raised.

The general results of this experiment are very much opposed to the idea of the composition of the earths, by plants, from any of the elements found in the atmosphere, or in water; and there are other facts contrary to the idea. Jacquin states that the ashes of Glass Wort (*Salsola Soda*,) when it grows in inland situations, afford the vegetable alkali; when it grows on the sea shore where compounds which afford the fofsile or marine alkali are more abundant, it yields that substance. Du Hamel found, that plants which usually grow on the sea shore, made small progress when planted in soils containing little common salt. The sunflower, when growing in lands containing no nitre, does not afford that substance; though when watered by a solution of nitre, it yields nitre abundantly. The tables of de Saussure, referred to in the Third Lecture, shew that the ashes of plants are similar in constitution to the soils in which they have vegetated.

De Saussure made plants grow in solutions of different salts, and he ascertained, that in all cases, certain portions of the salts were absorbed by the plant and found unaltered in their organs.

Even animals do not appear to possess the power of forming the alkaline and earthy substances. Dr. Fordyce found, that when canary birds at the time they were laying eggs were deprived of access to carbonate of lime, their eggs had soft shells; and if there is any process for which nature may be conceived most likely to supply resources of this kind, it is that connected with the reproduction of the species.

As the evidence on the subject now stands, it seems fair to conclude that the different earths and saline substances found in the organs of plants, are supplied by the soils in which they

[280] grow; and in no cases composed by new arrangements of the elements in air or water. What may be our ultimate view of the laws of chemistry, or how far our ideas of elementary principles may be simplified, it is impossible to say. We can only reason from facts. We cannot imitate the powers of composition belonging to vegetable structures; but at least we can understand them: and as far as our researches have gone, it appears that in vegetation, compound forms are uniformly produced from simpler ones; and elements in the soil, the atmosphere and the earth, absorbed and made parts of beautiful diversified structures.

The views which have been just developed lead to correct ideas of the operation of these manures which are not necessarily the result of decayed organized bodies, and which are not composed of different proportions of carbon, hydrogene, oxygene and azote.—They must produce their effect, either by becoming a constituent part of the plant, or by acting upon its more essential food, so as to render it more fitted for the purposes of vegetable life.

Of Limestone as a manure.

The only substances whioh can with propriety be called fossile manures, and which are found unmixed with the remains of any organized beings. are certain alkaline earths or alkalies, and their combinations.

The only alkaline earths which have been hitherto applied in this way, are lime and magnesia. Potassa and soda, the two fixed alkalies, are both used in certain of their chemical compounds. I shall state in succession such facts as have come to my knowledge respecting each of these bodies in their applications to the purpo-

[281] ses of agriculture; but I shall enlarge most upon the subject of lime; and if I should enter into some details which may be tedious and minute, I trust, my excuse will be found in the importance of the enquiry; and it is one which has been greatly elucidated by late discoveries.

The most common form in which lime is found on the surface of the earth, is in a state of combination with carbonic acid or fixed air. If a piece of limestone, or chalk, be thrown into a fluid acid, there will be an effervescence. This is owing to the escape of the carbonic acid gas. The lime becomes dissolved in the liquor.

When limestone is strongly heated, the carbonic acid gas is expelled, and then nothing remains but the pure alkaline earth; in this case there is a loss of weight; and if the fire has been very high, it approaches to one-half the weight of the stone; but in common cases limestones, if well dried before burning, do not lose much more than from 35 to 40 per cent., or from seven to eight parts out of 20.

I mentioned in discussing the agencies of the atmosphere upon vegetables, in the beginning of the Fifth Lecture, that air always contains carbonic acid gas, and that lime is precipitated from water by this substance. When burnt lime is exposed to the atmosphere, in a certain time it becomes mild and is the same substance as that precipitated from lime water; it is combined with carbonic acid gas. Quicklime, when first made, is caustic and burning to the tongue, renders vegetable blues green, and is soluble in water; but

[282] when combined with carbonic acid it loses all these properties, its solubility and its taste: it regains its power of effervescing, and becomes the same chemical substance as chalk or limestone.

Very few limestones or chalks consist entirely of lime and carbonic acid. The statuary marbles, or certain of the rhomboidal spars, are almost the only pure species; and the different properties of limestone both as manures and cements, depend upon the nature of the ingredients mixed in the limestone; for the true calcareous element, the carbonate of lime, is uniformly the same in nature, properties and effects, and consists of one

proportion of carbonic acid 41.4, and one of lime 55.

When a limestone does not copiously effervesce in acids, and is sufficiently hard to scratch glass, it contains siliceous and probably aluminous earth. When it is deep brown or red, or strongly coloured of any of the shades of brown or yellow, it contains oxide of iron. When it is not sufficiently hard to scratch glass, but effervesces slowly, and makes the acid in which it effervesces milky, it contains magnesia. And when it is black and emits a fœtid smell if rubbed, it contains coally or bituminous matter.

The analysis of limestones is not a difficult matter; and the proportions of their constituent parts may be easily ascertained, by the processes described in she Lecture on the Analysis of Soils; and usually with sufficient accuracy for all the purposes of the farmer, by the fifth process.

Before any opinion can be formed of the manner in which the different ingredients in lime-
[283] stones modify their properties, it will be necessary to consider the operation of the pure calcareous element as a manure, and as a cement.

Quicklime in its pure state, whether in powder or dissolved in water, is injurious to plants.—I have in several instances killed grass by watering it with lime water.—But lime in its state of combination with carbonic acid, as is evident from the analyses given in the Fourth Lecture, is a useful ingredient in soils. Calcareous earth is found in the ashes of the greater number of plants; and exposed to the air, lime cannot continue caustic, for the reasons that were just now assigned; but soon becomes united to carbonic acid.

When newly burnt lime is exposed to air, it soon falls into powder; in this case it is called slacked lime; and the same effect is immediately produced by throwing water upon it, when it heats violently, and the water disappears.

Slacked lime is merely a combination of lime, with about one-third of its weight of water; i. e. 55 parts of lime absorb 17 parts of water; and in this case it is composed of a definite proportion of lime to a definite proportion of water, and is called by chemists *hydrate of lime*; and when hydrate of lime becomes carbonate of lime by long exposure to air, the water is expelled, and the carbonic acid gas takes its place.

When lime, whether freshly burnt or slacked, is mixed with any moist fibrous vegetable matter, there is a strong action between the lime and the
[284] vegetable matter, and they form a kind of compost together, of which a part is usually soluble in water.

By this kind of operation, lime renders matter which was before comparatively inert, nutritive; and as charcoal and oxygene abound in all vegetable matters, it becomes at the same time converted into carbonate of lime.

Mild lime, powdered limestone, marles or chalks, have no action of this kind upon vegetable matter; by their action they prevent the too rapid decomposition of substances already dissolved; but they have no tendency to form soluble matters.

It is obvious from these circumstances, that operation of quicklime, and marle or chalk, depends upon principles altogether different.—Quicklime in being applied to land tends to bring any hard vegetable matter that it contains into a state of more rapid decomposition and solution, so as to render it a proper food for plants.—Chalk, and marle, or carbonate of lime will only improve the texture of the soil, or its relation to absorption; it acts merely as one of its earthy ingredients.—Quicklime, when it becomes mild, operates in the same manner as chalk; but in the act of becoming mild, it prepares soluble out of insoluble matter.

It is upon this circumstance that the operation of lime in the preparation for wheat crops depends; and its efficacy in fertilizing peats, and in bringing into a state of cultivation all soils abounding in hard roots, or dry fibres, or inert vegetable matter.

The solution of the question whether quicklime ought to be applied to a soil, depends upon
[285] the quantity of inert vegetable matter that it contains. The solution of the question whether marle, mild lime, or powdered limestone ought to be applied, depends upon the quantity of calcareous matter already in the soil. All soils are improved by mild lime, and ultimately by quicklime, which do not effervesce with acids; and sands more than clays.

When a soil deficient in calcareous matter contains much *soluble* vegetable manure, the application of quicklime should always be avoided, as it either tends to decompose the soluble matters by uniting to their carbon and oxygene so as to become mild lime, or it combines with the soluble matters, and forms compounds having less attraction for water than the pure vegetable substance.

The case is the same with respect to most animal manures; but the operation of the lime is different in different cases, and depends upon the nature of the animal matter. Lime forms a kind of insoluble soap with oily matters, and then gradually decomposes them by separating from them oxygene and carbon. It combines likewise with the animal acids; and probably assists their decomposition by abstracting carbonaceous matter from them combined with oxygene; and consequently it must render them less nutritive. It tends to diminish likewise the nutritive powers of albumen from the same causes; and always destroys to a certain extent the efficacy of animal manures, either by combining with certain of their elements, or by giving to them new arrangements. Lime should never be applied with animal manures, unless they are too rich, or for the purpose of preventing noxious effluvia, as in certain cases mentioned in the last Lecture. It is injurious when mixed with any common dung, and tends to render the extractive matter insoluble.

I made an experiment on this subject: I mixed a quantity of the brown soluble extract, which was procured from sheeps' dung with five times its weight of quicklime. I then moistened them with water; the mixture heated very much; it was suffered to remain for 14 hours, and was then acted on by six or seven times its bulk of pure water: the water, after being passed through a filter, was evaporated to dryness; the solid matter obtained was scarcely coloured, and was lime mixed with a little saline matter.

In those cases in which fermentation is useful to produce nutriment from vegetable substances, lime is always efficacious. I mixed some moist tanner's spent bark with one fifth of its weight of quicklime, and suffered them to remain together in a close vessel for three months; the lime had become coloured and was effervescent: when water was boiled upon the mixture it gained a tint of fawn colour, and by evaporation furnished a fawn-coloured powder, which must have consisted of lime united to vegetable matter, for it burnt when strongly heated and left a residuum of mild lime.

The limestones containing alumina and silica are less fitted for the purposes of manure than pure limestones; but the lime formed from them has no noxious quality. Such stones are less efficacious, merely because they furnish a smaller quantity of quicklime.

I mentioned bituminous limestones. There is very seldom any considerable portion of coally matter in these stones; never as much as five parts in 100; but such limestones make very good lime. The carbonaceous matter can do no injury to the land, and may, under certain circumstances, become a food of the plant, as is evident from what was stated in the last Lecture.

FROM THE AMERICAN FARMER.

On the Cultivation of Turnips.

Pittsfield, Ms. Dec. 22. 18 17.

Confirming mine of the 12th inst. I enclose an acccount of the method I followed for the cultivation of turnips, agreeable to your request—and sball be much gratified should it be of use to you, or of any aid in our patriotic endeavours, to better the system of agriculture in your vicinity. As you seem inclined to try the experiment, I would observe, (though perhaps already known to you) that the only two difficulties to encounter in the cultivation of turnips, are the *fly* and the *worm*; the former makes its attacks, between the time of *shooting out of the earth*, and the expansions of the seed leaf, the latter, from the time of becoming a bulb, until it is at maturity. To counteract the former, the first stage of vegetation must *be forced*—and this is attained by *sowing the seed immediately on the manure*, and then top dressing with lime, plaster, or ashes. The latter are repulsed, by means of the hoe.—By this operation you thin out the superfluous plants, and *take the earth from those* left for the crop; thus leaving *the tap root only*, in the earth—you must not be frightened to see them prostrate like transplanted cabbages, for the first two or three days,—they will soon raise their drooping leaves.

By giving the full force of the manure, immediately to the seed, *the seed, or rough leaf*, is thrown out so rapidly, that the fly has little chance to operate, and by taking the earth from the bulbs (like radishes) the worm cannot find means to attack it. The best time to put in the seed, is immediately after a shower—but be certain that the seed follows immediately the spreading the manure in the drills, and not let it have a chance to evaporate or cool. There is no danger of sowing too thick, not less than three pints of seed to an acre, from that to two quarts.

I would here remark, for fear of misapprehension, that the *seed* of the acre of turnips, was of the common English kind(red and green tops) those called *white globes*, are preferable but we could not obtain any—and I would also observe that I intend to try next year, one acre af turnips with plaster only ; if it succeeds, the expense will not exceed $15 the acre.

You will observe by the enclosed account, that we rolled in the seed ; I will hereafter transmit you a sketch of a roller, that I use for the purpose, and so constructed as to be made heavy or light, as the use needed of one may require. This is an implement of husbandry (in my humble opinion) very requisite in farming, and not in use at all by our farmers.

Accept, Sir, my cordial salutation.

THOMAS MELVILLE, Jr.

Geo. M. Jeffreys, Esq.

Persuaded that the opinion prevalent in this part of the country, relative to turnips, was erroneous ; that with not much more expense than on potatoes, an acre of *old improved land* could be made to produce, as in Europe, a much greater quantity than in the usual way of raising them on *new land*, *recently burnt over*, or in *bog land*, I determined in the spring to appropriate an acre on the farm belonging to my father, and my care, to this experiment.

For this purpose, I selected a piece in a lot, which was probably one of the first cleared on the farm, and has entirely been, (from what I could lea n from the neighbours) as often under tillage as any other piece on it, and quite impoverished; the soil a gravelly loam ; in 1813, it was sowed to grain and stacked ; 1814 and 15, mowed ; 1816, half to potatoes, and manured, and half plastered and mowing.

On the 20th May, 1817, ploughed up of the potatoe ground, and green sward together, half an acre of each ; harrowed it well twice—in this state, it remained till the 20th of June ; ploughed it and harrowed it again, and formed into drills, each drill about 28 inches apart, thus making 53 drills in the length of the piece, from north to south—the next day, carried on 14 loads of hog manure, 7 of sheep, and 7 of common barn manure, and spread it *immediately* on the top of the drills ;—the same day (to preserve the whole strength of the manure,) sowed the seed, (on the manure) and rolled it in immediately. The following day, sowed on 30 bushels of slacked lime, and 15 bushels of house ashes ;—to extend the experiment, divided their top dressings equally on the different kinds of manure, (so as to ascertain which manure, and which top dressing was most suitable for turnips) left about two square rods without either manure, or top dressing, and marked off three drills, not to be hoed at all.

In a few days, had the satisfaction to see that the seed had taken well ;—at first, that part which had sheep manure, offered to be the best and most rank, while that without manure could hardly be perceived to have pierced the soil ;—on the 10th July, harrowed *between the drills*, with a common corn harrow, to loosen the soil and extirpate weeds ;—on the 15th examined the field, found no sign of worms ; the part with sheep manure and ashes continued the most promising ; that with hog manure and ashes next. We now hoed out (with a small hoe, about five inches wide, and four deep, well steeled, and sharp on sides and face) so as to leave but one plant in four or five inches, and to take the earth from the remaining plants. After this first hoeing, the drills with hog manure and ashes took the lead, those which had neither manure, nor top dressing, and those not hoed, were very diminutive in comparison.

The 21st July, harrowed again between the drills, and the 26th hoed out the field a second and last time.

The 1st August, began to thin out by hand (at which time the turnips were in size from 2 1-2 to 3 1-2 inches, except those not manured, and those not hoed, both which were quite small) and we thus continued every day or two, to thin out, for the purpose of feeding out to the stock—in this manner, 63 bushels were used previous to the field being measured and examined by Messrs. Strong and Osborn, for the purpose of ascertaining its produce, which they estimated at 800 bushels.

On the 5th November, began to take them in, and we had *twenty-five ox cart loads*, which we estimated at good 30 bushels each, they weighed about 40 pounds to the bushel, or about *fifteen tons* for the acre ;—the expense of cultivation, has been, as at foot, $17 75 cents—they were harvested, and got in, by a man and a boy, with an ox team, in two days and an half.

The average weight of the turnips, is I think from four and a half to six pounds ; several weighed ten pounds, and one weighed 13 1-4 pounds ; whilst those without manure, and those not hoed, do not average more than 1 1-2 pounds each.

MEMORANDUM OF EXPENSES, ON THE FOREGOING ACCOUNT OF TURNIPS.

Ploughing, harrowing and drilling, getting out and spreading manure.	-	$7 50
Seed and rolling,	-	50
15 bushels unslacked lime,	-	3
15 do. ashes,	-	1
Sowing lime and ashes,	-	25
Harrowing between drills,	-	50
Hoeing and cleaning, man and boy,	-	2 50
Harrowing drills, 2d time,	-	50
Hoeing and cleaning, 2d time,	-	2
		$17 75

The satisfactory result of this experiment, (entirely novel in this part of the country) may I hope, induce many of my brother farmers, to turn at least a small portion of their *old natural grass lands* into turnip fields—the trial will not cost much extra labour, or expense, and experience will prove to them, that they can, not only keep their stock *cheaper* and *better*, but can keep a greater number ;—besides the incalculable advantage of putting land in good heart for grain, especially wheat.

THOS. MELVILLE, Jr.

Pittsfield, Dec. 1817.

P. S. I would always recommend *fall ploughing* of land intended for turnips.

THE PLOUGH BOY.

ALBANY : SATURDAY, JUNE 17, 1820.

We trust we need not say any thing to convince the County Agricultural Societies of the necessity and importance of attending to the following notice. But in our capacity of Secretary of the Board of Agricnlture, we take the liberty of requesting, in behalf of the Board, that it may be published by the editors of our public journals, throughout the state ; and we have full confidence, that their public spirit will insure a prompt compliance with this request.

Board of Agriculture.

Notice from the General Committee to the County Agricultural Societies.

The printed Schedules, Nos. 1, 2, 3, 4, are supposed at present to be in possession of the county societies. The general committee is anxious, at an early moment, to draw the attention of the officers of the county societies to these schedules.

Nos. 1 and 2, it is expected, will be filled up in a very detailed manner ; yet with a convenient conciseness. These details are very important ; for it is in the agreement or disagreement of them, in the returns to be annually made to the secretary of state, that the board of agriculture, when in possession of the returns from all the county societies, can perceive the value or the fault of any particular course of management.

Schedule No. 4, is considered to be a very important document ; and the presidents of the county societies are earnestly and respectfully requested to fill it up in as careful and as detailed a manner as circumstances will admit of The general committee attaches much interest to this schedule.

In relation to the distribution of prizes by the county societies, the general committee would observe, that in a great many of the returns made last year to the board of agriculture, it has been ascertained that the quantity of produce reported per acre, was not actually taken off the ground ; but that a small portion of an acre was measured, and the quantity actually gathered from that portion, multiplied by its relation to an acre, was then assumed as the real produce of an acre. This is a very deceptive process, and every practical farmer knows it to be so.

The county societies should indiscriminately exact the real measurement of the whole contents of the acre or acres, and should give timely notice to the members of their societies of their determination to do so. By adhering to a contrary practice, the real averages can never be known, and the societies will practice a continual deception upon themselves and the public.

It would be a wise measure for each town to have a small committee of *sworn measurers*, to go round at an appointed time, and measure the crops. These measurers should be paid a dollar a day from the funds of the society ; and they

should give the certificates of admeasurement, and not the grower of the crop.

It is recommended also to spare no pains in the selection of competent judges of live stock. In most of the counties, our farmers, at present, are not accustomed to discriminate nicely in these matters; and the transient butcher or drover, both on the score of skill and impartiality, is sometimes to be preferred, as a judge, to the members of the societies. In the present state of our general knowledge of the most valuable points of live stock, which is undoubtedly very defective, it is important to avoid unskilful and prejudiced judges. The injudicious awards which they may be expected to make, have the effect of continuing whole neighbourhoods in the *notion* of unprofitable breeds, and the prosperity of many counties may be thus greatly retarded.

By order,

S. SOUTHWICK, *Sec'y.*

General Committee, Albany, June, 1820.

Weekly Summary.

The deposits in the Albany Savings Bank, on the first day of its opening, (10th inst.) amounted to $527.

Henry Eckford, Esq. who stands at the head of his profession, has resigned his employment by government, of naval architect. This public duty proving injurious to his other avocations as ship builder.

The last Otsego Herald mentions another act of suicide, committed by Mr. Erastus Bowen, a young man, of that town, who hung himself in the barn of his father, with whom he resided. The jury had doubts whether insanity was not the cause.

The Poughkeepsie Republican Herald says, the belles of Rhode-Island, who are certainly very pretty, were so much pleased with a gingham, lately manufactured at one of their factories, that they resolved each to have a dress; and so anxious were they to obtain one, that they actually cut the cloth from the looms as fast as it was wove. The same paper adds, that the Messrs. Schencks, of Fishkill, are manufacturing a quantity of elegant ginghams, and muslins, which, when finished, might adorn even Miss Beauty herself; and that it is to be hoped the wisdom and patriotism of our fair demoiselles may yet help to supply the seeming lack of these valuable ingredients in congress.

By the 16th ult. 19 schooners had arrived at Ogdensburgh, laden with produce, to be forwarded in boats from thence to Montreal; and among the several articles of lading were 6,641 barrels of flour. A considerable proportion of the freight of these vessels is of the produce of this state.

From Philadelphia, we are informed that captain Churchill, of the schooner Monroe, lately arrived there from St. Barts, and on her passage was boarded by a Spanish sloop of war, under the Cortes flag, 25 days from Cadiz, who informed that the king of Spain had run off to France. Probably this information will prove alike unfounded with that lately received, via one of the West-India islands, of the city of Caraccas having been sunk by an earthquake.

Messrs. Fairman, Rand, and Toppan, have issued proposals for publishing an elegant and splendid edition of *Washington's Farewell Address.* This invaluable production ought doubtless to be placed along side of the *Declaration of Independence*, of which a splendid edition has already been published.

We understand, says the Georgetown Herald, that in consequence of the information lately received from the African coast, of the incredible number of vessels employed in the detestable traffic of the slave trade, the government is about to dispatch some fast sailing vessels of war to that station, to assist the Cyane in bringing to justice those offenders against the laws, religion, and humanity. It is ascertained, as a matter of fact, that many mercantile men, in the United States are concerned in this traffic.

***More Piracy.*—On the 22d April, the ship** Jane, on her passage from Liverpool to Charleston, was boarded by a pirate ship of 14 guns, with Spanish colours; these were then taken down, and the Buenos Ayrean hoisted, when they proceeded to drive the crew of the Jane below, and plundered the ship of every thing worth taking, even to the most valuable part of the rigging, the clothes of the captain and crew, all the provisions, liquors, &c and $25,000 in specie — The specie was in boxes, and concealed in the cargo of salt with which the ship was freighted. By the entreaties of the captain they however left provisions enough to keep him and the crew from starving. They cocked a pistol at the captain several times—were armed with long knives, and threatened a general massacre. The captain supposes the ship and crew were Spanish.

The legislature of Connecticut, now in session, have passed a law declaring that no persons shall be joined in marriage before the intention of the parties shall be either publicly proclaimed, in some meeting or congregation, or a notice posted up eight days before such marriage.

The mariner's church was formally opened at Philadelphia, on the 5th inst. was very respectably filled, and solemnly consecrated.

Abraham Whipley, of Somerset, Pa. committed suicide, by cutting his throat with a razor, on the 30th ult.—He was in easy circumstances.

At New-Orleans, on the 12th ult. a fire broke out that consumed houses, and property, to the amount of $50,000.

To vine dressers.—A piece of a potatoe, placed on the end of a vine that has been cut, will effectually stop its bleeding.

A Charleston paper mentions the singular case that lately happened there, of a *rat* having been caught by the foot and held in close custody, by a *muscle.*

At the late election at St. Louis, Missouri, for choosing delegates for the convention to form a constitution, the advocates for slavery prevailed. In New-Madrid county, in that state, the militia were, on the 17th April, ordered out, *en masse*, to repair to New-Madrid, as an attack of the Shawnee indians on the place was expected. Two men, a Mr. Chandler, and a Mr. Davis, had been killed by a party of these Indians, and three of them having been taken, by the white people, into custody, an attempt was expected for the rescue of those prisoners by force.

Watermelon syrup.—A writer in the Edwardsville Spectator, under the signature of *Medicus*, states as a fact, that one gallon of the juice of the watermelon, when boiled down, will afford a pint of syrup, equal to molasses, or honey, for family purposes. Allowing then, what appears very probable, that an acre of land, well cultivated, would afford 8 tons of watermelons, the product, when boiled down, would be one ton of syrup, or, if reduced to sugar, probably about 13 cwt. of that ingredient. This is a matter that seems well worthy of a fair experiment; though perhaps an acre of pumpkins would afford a greater product in syrup, or sugar, and probably of as good quality.

By the last accounts from Council Bluffs, we learn that an unknown disease was so prevalent among the troops there that from one to five died daily; the disease supposed to be the effect of bad provisions.

METEOROLOGICAL JOURNAL, FOR THE MONTH OF MAY, 1820,

KEPT AT THE CITY ACADEMY IN ALBANY.

	Thermom'r			*Barometer.*			*Winds.*		*Weather.*		
days.	7, a m	2, p m	9, p m	7, a m	2, p m	9, p m	morn'g	aftern.	morn'g	aftern.	*Observations.*
1	50	79	59	29 67	29 61	29 62	N W	S W	Clear	Clear	
2	45	79	51	29.73	29.73	29.73	N W	N E	do	do	
3	44	75	57	29.75	29.79	29 79	S	S	do	do	
4	49	85	59	29.99	29 95	29.97	S E	S E	do	do	High winds, P. M.
5	54	79	58	29 97	29.90	29 86	S E	S E	Hazy	Cloudy	High wind.
6	57	72	56	29.86	29.89	29 95	S E	S E	Cloudy	do	
7	56	70	59	29.95	29.96	29.96	s b w	S E	do	do	
8	54	67	54	9.85	29.67	29.67	S E	S E	do	do	Rain from 5 P. M. during night.
9	46	69	56	29.80	29 81	29.80	W	N W	Clear	Clear	
10	46	80	59	29 80	29 80	29 76	W	W	do	Hazy	
11	54	64	61	29.76	29.74	29.69	S W	S	Cloudy	Cloudy	Rain, P. M. and all night.
12	63	78	62	29.29	29 29	29 41	S	S	do	do	Rain at intervals during day.
13	57	75	58	29.30	29.30	29.37	S	S	do	do	do do do do
14	53	85	54	29 40	29.47	29.54	S E	S E	do	do	Shower, 6 P. M.
15	52	63	52	29.70	29.74	29.81	W	S W	do	do	
16	48	45	48	29 81	29.86	29.70	N W	N W	do	do	Rain during day.
17	51	65	56	29 59	29 60	29 62	N	N E	do	do	
18	55	70	56	29 62	29 66	29.7-	E	E	do	do	Heavy rain, 4 A. M. and rain, P M.
19	51	70	54	29 80	29 82	29 89	N E	N	do	do	Rain, P. M.
20	55	66	57	29.60	29 60	29 60	N	N E	do	do	Rain early A. M. and shower, P. M.
21	55	66	55	29 60	29 60	9.57	E	N	do	do	Rain, P. M.
22	57	74	54	29.52	29.50	29 45	W	S E	do	do	
23	60	78	69	29.37	29.23	29.23	S E	S E	Clear	do	
24	59	68	60	29 26	29.36	29 40	N W	W	Cloudy	do	Rain at night.
25	55	69	51	29.50	29.60	29 67	W	W	Clear	Clear	
26	47	56	44	29.67	29.61	29.61	N W	N W	Cloudy	Cloudy	Rain all day.
27	48	62	47	29 61	29.61	29.67	W	W	do	do	
28	45	72	57	29 75	29 73	29.73	W	S E	Clear	do	
29	56	68	5	29 73	29.79	29.79	S	S	Cloudy	do	Showery, A. M.
30	60	75	59	29.79	29 79	29 76	S	N E	do	do	Shower, P. M. and rain at night.
31	54	66	54	29 77	29 80	29 8-	N W	N	do	do	

FOREIGN.

In the British parliament the chancellor of the exchequer, in a speech, on the 28th April, informed the house that the governor of Canada had forwarded a request to his government, that no more emigrants be sent there, "as they had become burdensomely expensive to that colony;" and he also informed the house, that those who had emigrated to "the American provinces," (the United States) were in great distress, and in a worse situation than when at home. On the same day a motion was made in that body, by colonel Davies, for a return of persons connected with the civil department, and their allowances: and notices of motions were made for a revival of the committee on the education of the poor, by Mr. Brougham—of the revival of the catholic question, by Mr. Grattan—for parliamentary reform, by Mr. Labton—for the consideration of the state of the Scotch representation, by lord Hamilton—and for some measure for the relief of insolvent debtors, by lord Althorp.

Six thousand persons have lately left Liverpool to settle in the southern part of Africa.

A carriage, with wings, has been exhibited in France, which it is said is capable of travelling 30 miles an hour—*doubtful.*

The emperor of Russia has been formed two establishments in St. Petersburgh, and one at Kastroma, in which about 4,000 youths are constantly to be instructed in the languages, history, geography, mathematics, and all the branches of artillery and fortification. He has formed schools for soldiers in the several departments; and the number of pupils, in 1818, amounted to 46,000. He has also banished from his dominions all of the Jesuits, who are not natives of the country, on the accusation that they are endeavouring to convert families to the catholic faith.

The last intelligencer from South America is by the Blooming Rose, which arrived at New-York on the 6th inst. from Rio de la Plata. The information is not very satisfactory. On the 23d February, the provinces of Entre Rios, Santa Fee, and Buenos Ayres, met in convention, and entered into formal stipulations of union. This treaty was opposed by a strong party; and at the last dates another revolution had taken place at Buenos Ayres, in which great excesses were committed by the military, and many citizens obliged to flee for safety to Monte-Video, and other places.

An agricultural society has lately been established in Africa, at Sierra Leone.

PRICE CURRENT.

Corrected Weekly, from the New-York General Price Current and Public Sales Report.

	Per	From D.	From C.	To D.	To C.	Remarks
ASHES, Pot	Ton	102	50			Dull.
—— Pearl		107				"
BEEF, Mess	bbl	9	25	9	50	
—— Prime		8		8	25	
—— Cargo		5	50	6		
BUTTER, first quality	lb		14		15	
—— for exportation			8			
CANDLES, mould			13		13	
—— Dipped			17			
—— Sperm			46		42	
—— Wax			60			
CHEESE, American			6		7	
CHOCOLATE, New-York			18		23	
—— Boston, No. 1			18		23	
—— Albany			20		23	
DOMESTIC GOODS,						
—— White shirting	yard		14		18	
—— Brown do			12		13	
—— 3-4 checks			16		18	
—— 7-8 do			21		22	
—— 4-4 do			24		26	
—— Stripes			16		17	
—— Plaids			16		18	
—— Bed-ticks			28		36	
—— Chambrays			14		15	
FEATHERS	lb		56		63	
FISH, Dry Cod	cwt	2	50	2	87	
—— scale		2				
—— Pickled Cod	bbl	3	50	4		
—— scale		2				
—— Salmon		15				
—— Fall mackrel No. 1		7	25	8		
—— —— No.		5	50	6		
—— —— No. 3		5				
—— Southern shad No. 1		5	50	6		
—— Connecticut mess shad		8	50	8		
—— Herrings		2	50	3		
FLAX	lb		18			
FLAX-SEED, clean	cask	13		13	50	
—— rough		12		13		
FLOUR & GRAIN						
—— New-York superfine	bbl.	4	75	4	87	
—— Philadelphia		5		5	25	
—— Baltimore		5				
—— Richmond		5				
—— Middlings, fine		3	50	3	75	
—— Rye flour		2	50	2	62	
—— Indian meal		3				
—— —— in hogsheads	300	14	50	15		
—— Wheat, North River	bus.		87		94	
—— —— Southern, new		1		1	3	
—— Barley			53		56	
—— Oats			40			
GLASS, Amer. 7 by 9	box	8				
—— 8 10		9				
—— 10 12		10				
GLUE	lb		10		13	
GUN-POWDER, Amer.	25lb	4		6		
—— Cannon		6		6	50	
HAMS, Virginia	lb		10		12	
—— North River			9		10	
HEMP, Water rot	Ton					None.
—— Dew rot		150				Scarce.
HOGSLARD	lb		10			
HONEY			15		16	
HOPS 1st and 2d sort			6		8	
IRON, American	Ton	85		90		
LUMBER, Boards, oak	Mft	18				
—— North River pine		16		17		
—— Yellow pine		18		20		
—— Albany pineb'ds	pie		18			
—— Scantling, pine	Mft	14		15		
—— —— oak		25				
—— Oak timber	sd. ft		20		22	
—— Shingles, cypress	1000	4				
—— —— pine		3		3	50	
—— Staves, pipe		54				
—— —— hhd		43				
—— —— bbl		22				
—— —— R O hhd		25				
—— Hhd heading		50				
—— —— hoops		25		30		
OIL, Linseed	gal		94			
PLAISTER of PARIS	Ton	4	25	4	50	
PORK, Cargo	bbl	9		9	50	
Prime		11		11	25	
Mess		13	50	14		
SOAP White	lb		13		15	
Brown			9		11	
WAX, Bees, white			55		60	
yellow			31		32	

New-York, June 9, 1820.

FROM BLACKWOOD'S EDINBURGH MAGAZINE.

LITERARY AND SCIENTIFIC INTELLIGENCE.

Connection of Moon and Weather.—Dr. Olbers denies that any connexion between the changes of the moon and of the weather is ever observable in the north of Germany, and he asserts that in the course of an extensive medical practice, continued for a number of years, with his attention constantly directed to the lunar periods, he has never been able to discover the slightest connexion between those periods and the increase or decrease of diseases, or their symptoms.

Greenland.—Gieske, the mineralogist, after a residence of eight years, draws a sombrous picture of the colony of East Greenland, which he visited and explored to the 62d degree of latitude. He is confident, from the information given him by the natives, that at present, that rigorous coast, is not inhabited, or even habitable, beyond the 64th degree at farthest; and that it would be difficult, if not impossible, to penetrate farther.

Salt mines of Meurthe.—The researches for the discovery of rock salt which commenced in July last at Moyenire in the department of La Meurthe is carried on to advantage. After exploring to the depth of 200 feet and reaching the first layer, which is eleven feet in thickness, the workmen had to perforate a bed of gypsum and clay of 546 feet, when they came to a second stratum of salt, eight feet in thickness. It is intended to remove the researches to two other neighboring points, to ascertain the breadth and magnitude of the whole bed. The two points form a triangle nearly equilateral, each side of which may be about 6 or 700 toises in length. One of these points is in the city of Vic, and the other to the south of it. On this latter point, they have already pierced to the depth of twenty-five feet of vegetable earth: the orifice of of each bore is 3 1-2 inches, which constantly fills up with fresh water. The salt of the first bed is extremely white, and transparent as rock crystal. It is likewise very pure, and free from every noxious or terrene substance. The second appears to intermixed with gypseous or argilaceous substance, but in a very small proportion. This salt is brown, not unlike a clouded flint; both the kinds are very compact, well crystallized, the fractures cubical, and the saline taste superior to that of any salt obtained by evaporation. It contains but very little of muriate of magnesia, or of sulphate of lime.

Work on Petrifactions.—M. Lamouroux, Professor of Natural History in the Royal Academy of Caen, is about publishing a work (with 40 plates,) containing some account of the marine polypi that so abound in the calcareous formations of Lower Normandy. One stratum in the vicinity of Caen is almost entirely composed of them. They are in a perfect conservation; and from the singular characters which they exhibit, M. Lamoroux gives figures of the natural size, with some essential parts magnified by the aid of optical glasses. The work will be of use to geologists, by making them acquainted with antediluvian animals of a description not visible or known at present. Some constitute new genera, and others belong to known genera; among these latter are sponges and other animals of a similar kind. The work will include a figure and description of the fossile crocodile that has been discovered near Caen.

State of German literature in Sweden.—German literature has been very much cultivated of late years in Sweden. Exclusive of a collection of classical German authors printed at Upsal, in the original language, (sixty-six volumes in the whole,) the best works of various authors have been translated into Swedish.

Lalande's journey to India.—M. de Lalande, associate naturalist to the king's garden, Paris, has just set out on his travels to the Cape of Good Hope, where he will pursue his researches in botany, zoology, and the various departments of natural history. From thence he will proceed to India to prosecute the ulterior objects of his mission in the Indian Seas.

Killing Animals by Carbonic Acid.—A new method of putting animals to death without pain, has been proposed by Dr. Thornton; in consequence of the employment of which, it is said, the meat would look better, last better, and salt better. These desiderata are proposed to be attained by means of fixed air.

Crocodile's Flesh an article of Food.—At Senaar crocodiles are often brought to market, and their flesh is publicly sold there. I once tasted some of the meat at Esne, in Upper Egypt; it is of a dirty white colour, not unlike young veal, with a slight fishy smell; the animal had been caught by some fishermen in a strong net, and was about twelve feet in length. The Governor of Esne ordered it to be brought into his courtyard, where more than a hundred balls were fired against him without any effect, till it was thrown upon his back, and the contents of a small swivel, discharged at his belly, the skin of which is much softer than that of the back.

Burckhardt's Travels.

Remarkable Phenomena at Christiana.—The following curious details have been received from Christiana, in Norway:—On the 7th instant, the barometer rose to the extraordinary height of 29 inches, 16 lines, which has not taken place here for a great number of years. The sea was eight feet lower on that day than it has been for the last twenty years. Professor Hansteen, who measured its height, made also some experiments on the intensity of the magnetic force, and found the needle in such agitation that he could obtain no fixed result from his experiments. These different phenomena appear to portend some extraordinary revolution in nature.

Sale of Land for Taxes.

State of New-York—Comptroller's Office.

PUBLIC Notice is hereby given, that lists of certain lands liable to be sold for taxes, have been forwarded to the several counties in this state, in order to be deposited in the several county treasurers' and town clerks' offices, respectively, for the information of all persons concerned; and that the said lists may be examined at either of the said offices, at all reasonable hours: And notice is hereby also given, that on *Thursday, the seventh day of October next*, at ten o'clock in the forenoon, at the capitol, in the city of Albany, and on the next succeeding days, I will sell at public auction, to the highest bidder, so much of each lot, piece or parcel of land mentioned and described in the said lists, as will be necessary to pay all taxes, interest and charges now due, or that may grow and may be due thereon at the time of sale.

The conditions of sale will be, that the purchasers within forty-eight hours after the sale, pay the purchase moneys and receive certificates of their purchases; and that after the expiration of two years from the date of their certificates, they receive conveyances for the lands purchased by them respectively, unless the owners, or those claiming to be such, of the lands so purchased, shall, previous to the expiration of the said two years, pay to the comptroller, for the use of the said purchasers, their heirs and assigns, the amount of the purchase moneys, with interest, at the rate of twenty per centum per annum.—The lands sold to be subject to all claims of the state thereon. And in case any land to be purchased at the said sale and that may be conveyed in pursuance thereof, shall at the time of conveyance be in the actual possession and occupancy of any person or persons, the title of the purchaser shall then and in that case be subject to the stipulations and provisions of the fifth section of the act, entitled "an act to repeal in part the act, entitled "an act providing more effectually to ascertain and determine the true value of real estates within this state, and for other purposes," and further to amend the act for the assessment and collection of taxes" passed April 13, 1819.

ARCH'D. M'INTYRE, Comptroller.

Albany, May 27th, 1819.

☞ Persons who may have made payments into the treasury for taxes, and omitted to have their receipts presented at the comptroller's office to have them entered and countersigned as required by law, are advised to present them in order to be so entered and countersigned before the day of sale: or that in case of failing to do so, their lands will be sold, and they thereafter be deprived of the benefit of all such payments.

Payments for taxes cannot be received on the days of sale, nor for two days prior to the sale.

☞ **The above mentioned sale is postponed untill Tuesday, the eighth day of February next, at ten o'clock in the forenoon.**

ARCH'D M'INTYRE, *Comptroller.*

Albany, October 2, 1819.

☞ Agreeably to an act of the legislature, passed this day, the above sale is further postponed until the first Tuesday of February, in the year 1821, to be then held at the same place and hour. ARCH'D. M'INTYRE, *Comptr.*

Albany, February 4, 1820.

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